



California Regional Water Quality Control Board

San Diego Region

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9174 Sky Park Court, Suite 100, San Diego, California 92123-4340

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Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

June 1, 2007

CERTIFIED MAIL

Registration Number

In reply refer to:

WPS: 18-1999133.02:ariac

Mr. Pedro Orso-Delgado
District Director
Department of Transportation, District 11
4050 Taylor Street
San Diego, CA 92110

INVESTIGATIVE ORDER NO. R9-2007-0092
REQUEST FOR REGIONAL AERIAL DEPOSITION STUDY INCLUDING THE
SWEETWATER RESERVOIR AIRSHED

Dear Mr. Orso-Delgado and Mr. Hulsizer:

Enclosed is Investigative Order No. R9-2007-0092 (Order) of the California Regional Water Quality Control Board, San Diego Region (Regional Board) concerning an aerial deposition study that is required to comply with the special condition in Clean Water Act §401 Water Quality Certification No. 99C-133, which was issued on April 25, 2001. This Investigative Order is issued pursuant to California Water Code (CWC) sections 13225, 13267, and 13383 and directs you to submit a study plan and monitoring reports associated with a regional aerial deposition study to include the Sweetwater Reservoir Airshed.

Please note the requirements contained within the Order. Specifically, all technical reports submitted to the Regional Board shall be accompanied by the certification, under penalty of law, that the information is true, accurate, and complete.

Failure to meet the requirements may subject you to further enforcement action by the Regional Board, including administrative civil liability pursuant to CWC sections 13268 and 13385. Any request for extensions of submittal dates must be submitted in writing and are denied absent written approval of the Executive Officer of the Regional Board.

The heading portion of this letter includes a Regional Board code number noted after "In reply refer to:" In order to assist us in the processing of your correspondence please include this code number in the heading or subject line portion of all correspondence and reports to the Regional Board pertaining to this matter.

California Environmental Protection Agency

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Mr. Orso-Delgado

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June 1, 2007

Mr. Hulsizer

NOTICE OF INVESTIGATIVE ORDER NO. R9-2007-0092

Questions regarding this Notice should be directed to Ms. Christina Arias. She may be reached by phone at (858) 627-3931, or email at carias@waterboards.ca.gov. Written correspondence pertaining to this Notice should be sent via email to Ms. Arias.

Respectfully,



JOHN H. ROBERTUS

Executive Officer

San Diego Regional Water Quality Control Board

JHR:mm:dg:ca

Cc:

Mr. Greg Hulsizer

Chief Executive Officer

South Bay Expressway, LP

California Transportation Ventures, Inc.

880 Kuhn Drive

Chula Vista, CA 91914



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

INVESTIGATIVE ORDER NO. R9-2007-0092

FOR

Department of Transportation, District 11
4050 Taylor Street
San Diego, CA 92110

AND

California Transportation Ventures, Inc.
880 Kuhn Drive
Chula Vista, CA 91914

The California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds that:

1. California Water Code Sections 13267(b) and 13383 contain criteria that allow the Regional Board to conduct investigations and to establish technical, monitoring, inspection, entry, reporting, and record keeping requirements from any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste in accordance with the conditions in the section.
2. California Water Code Section 13225(c) directs the Regional Board to require local agencies to investigate and report on any technical factors involved in water quality control or to obtain and submit analyses of water.
3. On April 23, 2001, the Regional Board adopted Resolution No. 2001-51 approving Clean Water Act §401 Water Quality Certification for the State Route 125 South Toll Road Project (Resolution). This Resolution was issued to the California Department of Transportation (Caltrans), and California Transportation Ventures (CTV), the applicants, provided they would adhere to the stated conditions in the Order. On page no. 2 of the Resolution, a special condition states that "Caltrans shall promote and pursue a regional aerial deposition study that will include the Sweetwater Reservoir Airshed."
4. The Resolution requirements that were considered and adopted by the Regional Board were based on testimony provided during the public hearing on the matter. At the public hearing on April 23, 2001, Mr. Gary Gallegos, Caltrans District 11

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Director, stated "We are committed to being a part of a regional study that would look [at] what the impacts of airborne pollutants would have on drinking water. And we think it would be a broad regional study that may be looked, the whole San Diego region, and we would commit to being a part of that."¹

5. In a letter dated November 5, 2001 to Mr. Charles Stoll, Deputy District Director for Caltrans District 11, the Regional Board described the expectation that Caltrans would comply with the special condition. This expectation included taking "an active, rather than a passive, role in the design and implementation of a study that would include actual measurements of the deposition of air pollutants in a region that includes the Sweetwater Reservoir Airshed."
6. In a report dated March 30, 2007, Caltrans reported that it has complied with the special condition, and describes their activities to date. Activities include developing a research proposal in 2005 with the assistance of the University of California, Davis, and the San Diego Association of Governments to address regional-scale cross-media impacts from on-road mobile source emissions. In February 2006, a Caltrans representative attended a workshop held by the California Air Resources Board and State Water Resources Control Board to discuss aerial pollutant deposition, stormwater runoff, and impacts to water bodies.
7. The Regional Board review of the 401 Certification and supporting documents (file number 18-1999133.02) revealed no evidence that a regional aerial deposition study consisting of actual measurements of the deposition of aerial pollutants has been initiated by Caltrans and CTV. Nor is it evident that Caltrans and CTV have participated in any ongoing regional aerial deposition study that includes the Sweetwater Reservoir Airshed. For these reasons, the Regional Board finds Caltrans and CTV to be in violation of the special condition described in the Resolution.
8. An aerial deposition study is needed because it is unknown if aurally deposited metals or other pollutants from SR-125 are contaminating waterways. Preliminary results from a recent regional aerial deposition study² indicate that elevated levels of copper and zinc are found in areas that are in proximity to industrial and **transportation** land uses. Study authors state that if a continual source, such as automobiles, is emitting large particulates, these particulates may travel great distances given a long enough time and with enough wind to mobilize them. Modeling results show that the greatest local deposition of brake wear particles would be expected within approximately 250 meters of a roadway,

¹ Audio tapes for Regional Board meeting, April 23, 2001. Tape 3, side B.

² *City of San Diego Aerial Deposition Study Draft Summary Progress Report*. Weston Solutions, September 11, 2006.

and that total deposition rates decrease to 1/100 of their maximum values approximately 3 km from the roadway.

9. SR-125 runs in close proximity to the Sweetwater Reservoir and the Sweetwater River; aerially-born metals and other pollutants from this roadway may be deposited from SR-125 onto the surfaces of the Sweetwater River and Reservoir.
10. In accordance with California Water Code section 13267 (b) these findings provide Caltrans with a written explanation with regard to the need for an aerial deposition study and identify the evidence that supports the requirement to submit such a study.
11. Pollutant loading from SR-125 may result in increased municipal water supply treatment costs at the Perdue Treatment Plant supplied from the Sweetwater Reservoir. Pollutant loadings from SR 125 may also cause or contribute to exceedances of receiving water quality objectives in the receiving waters. Such exceedances may be considered in the development and implementation of total maximum daily loads (TMDLs). The costs associated with the aerial deposition study are therefore justified.
12. This action is being taken for the protection of the environment and, as such, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 2100 Et seq.) in accordance with Section 15108, Chapter 3, Title 14, California Administrative Code.

IT IS HEREBY ORDERED that, pursuant to Sections 13225, 13267, and Section 13383 of Division 7 of the California Water Code, Caltrans shall conduct an aerial deposition study and shall prepare and submit periodic monitoring and technical reports to the Regional Board.

1) The technical reports shall contain, but not be limited to, the following information:

- a) **Aerial Deposition Data Collection and Assessment.** A study design, followed by quarterly monitoring reports shall be submitted to the Regional Board to assess, at a minimum, the effects of the construction of SR-125 onto the Sweetwater River and Reservoir. Each report shall contain raw and summary data and an assessment of the fate and transport of a representative suite of airborne pollutants associated with vehicle exhaust. Each report shall include data in tabular and graphical form, and electronic data shall be submitted to the Regional Board upon request. A certified contract laboratory shall perform all sampling, laboratory, quality assurance, and analytical procedures.
- i) Caltrans shall propose monitoring stations that would be used to assess whether or not pollutants from the SR-125 are transported to the Sweetwater

River and Reservoir. The monitoring stations shall include at least one location upwind of SR-125 (or other suitable reference site), at least one location downwind of SR-125 and upwind of Sweetwater River, and at least one location downwind of SR-125 and upwind of Sweetwater Reservoir, along the transect of the predominant wind direction.

- ii) Aerial deposition data shall be obtained, analyzed, and reported for the purpose of completing the assessment described in item (a) above. Measurements should include, but not be limited to, the following constituents at the following frequencies³:

Parameter	Reporting Unit	Monitoring Frequency
A representative suite of Volatile Organic Compounds (VOCs)	$\mu\text{g}/\text{m}^2/\text{day}$	Composite sample collected at least once per month
A representative suite of Polycyclic Aromatic Hydrocarbons (PAHs)	$\mu\text{g}/\text{m}^2/\text{day}$	Composite sample collected at least once per month
Trace metals: copper, lead, zinc	$\mu\text{g}/\text{m}^2/\text{day}$	Composite sample collected at least once per month

Note: $\mu\text{g}/\text{m}^2/\text{day}$ = micrograms per square meter per day

- iii) Caltrans may propose water and/or sediment sampling to supplement aerial deposition samples for the purpose of completing the assessment described in item (a) above.
- 2) **Report Schedule.** The study design shall be submitted to the Regional Board no later than September 1, 2007. For subsequent reports, the report period will be quarterly, with the report of data and analysis due to the Regional Board no later than the 10th day of the month beginning December 10, 2007.
- 3) **Final Report.** A final report shall be submitted by June 30, 2009. The final report shall contain an assessment of all data collected under the monitoring program. The assessment shall include discussions of the fate and transport of constituents related to the construction of SR-125 and the impacts they may have on the Sweetwater River and Reservoir. The assessment shall also consist of a statistical analysis of the data. The report shall include data in tabular and graphical form, and electronic data shall be submitted to the Regional Board upon request.

³ Caltrans and CTV may propose alternate constituents and frequencies if supporting rationale is provided.

- 4) **Data Quality Assurance.** If water quality data is obtained, sampling and analysis shall conform to a Quality Assurance Project Plan compatible with the Surface Water Ambient Monitoring Program (SWAMP).⁴
- 5) **Certification Statement.** Each monitoring and technical report submitted to the Regional Board shall include the following certification statement signed by either the principal executive officer, ranking elected official, or duly authorized representative of that person:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

- 6) **Alternative Form of Compliance.** Alternatively, Caltrans may meet the special condition in Resolution No. 2001-51 and the requirements of this order if they partner with the Sweetwater Authority and the United States Geological Survey in the aerial deposition study that is underway.⁵

NOTIFICATIONS

1. Requirements established pursuant to Water Code Sections 13267(b) or 13383 are enforceable when signed by the Executive Officer of the Regional Board.
2. Pursuant to California Water Code section 13268, any person failing or refusing to furnish technical or monitoring program reports as required by Section 13267, or falsifying any information provided therein, is guilty of a misdemeanor, and may be liable civilly in an amount which shall not exceed one thousand dollars (\$1,000) for each day in which the violation occurs.

⁴ The State Water Resource Control Board (SWRCB) has prepared an electronic template for Quality Assurance Project Plans (QAPP) to assist in QAPP development, to provide a common format that will allow for review to be expedited, and to provide information on SWAMP consistency. Additional information and the template are available on-line at <http://www.waterboards.ca.gov/swamp/qapp.html>.

⁵ The results of Phase I of the study is described in: Mendez, Gregory O., *et al.*, Water-and Air-Quality Monitoring of the Sweetwater Reservoir Watershed, San Diego County, California—Phase One Results, Continued, 1999-2001. Phase II of the study is underway.

Mr. Orso-Delgado

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June 1, 2007

Mr. Hulsizer

INVESTIGATIVE ORDER NO. R9-2007-0092

3. Pursuant to Section 13385 of the Water Code, a violation of a requirements established pursuant to Water Code Section 13383 may subject you to civil liability of up to \$10,000 per day for each day in which the violation occurs.



JOHN H. ROBERTUS
Executive Officer

1 June 2007
Date